

INDIVIDUAL 404 PERMIT APPLICATION

**SURFACE COAL MINE OPERATION
In Ohio County, Kentucky**

WARDEN-MATANZAS WASTE SITE

Prepared for:

Armstrong Coal Company

407 Brown Road

Madisonville, KY 42431

Prepared by:

T.H.E.  Engineers, Inc.

973 Beasley Street, Suite #130

Lexington, Kentucky 40509

(859) 263-0009

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STANDARD OPERATING PROCEDURES

1. Pre-Application Meeting.

An on-site meeting with a representative from the United States Army Corps of Engineers (USACE) will be conducted, but has not been scheduled to date.

2. Receipt of Application.

Please refer to ENG Form 4345 and attachments for information related to applicant, authorized agent, project location, project description and purpose, adjoining property owners, summary of impacts and signature authorization. See Vicinity Map for project location.

A. Detailed description of proposed activity:

(1) Impacts

The areas of streams to be excavated or filled are: 1.033 acres of ephemeral and 1.197 acres of intermittent stream. There will be 3 wetlands filled with a total area of 4.036 acres (4.028 acres of forested and 0.008 acres of emergent). Stream lengths to be impacted by the proposed activity are listed below.

(a) Direct Impacts

- The proposed activity will involve hollow fills or permanent fills.
- Two new temporary basins and one pre-treatment pond will be utilized for sediment control, impacting approximately 1000 feet of stream.
- Mining will affect 9,543 feet of intermittent stream, and 18,518 feet of ephemeral stream (totaling 28,061 feet), and 4.036 acres of wetlands; required to develop a mixed coal refuse disposal site (coal waste site). Impacted resources will be mitigated on-site and off-site. A mitigation plan is submitted.

(b) Indirect Impacts

- Water will be diverted within the project boundary. No diversions outside of the project boundary will be needed during the mining process.

- Site excavation will result in impacts to streams and wetlands and will directly impact aquatic life movement by creating permanent obstacles.

(2) Drainage Acreage

The total area within the project boundary is 309.8 acres, which is located within the Williams Creek and Elk Creek watersheds. There are four general watershed locations where existing drainage leaves the project site; two flow south toward Williams Creek and two flow north toward Elk Creek. Drainage areas for these watersheds are 168.9 acres, 70.0 acres, 53.1 acres, and 24.5 acres. Refer to the “Stream Habitat Assessment and Wetland Delineation Report” for drainage areas of each impact.

(3) Purpose

The purpose of the proposed activity is to establish a coal waste site in support of other existing coal mining operations needed in order to meet future energy demands of the United States. The operation is expected to last approximately 180 months. This project will maintain jobs for 450 employees by supporting those mining operations. Business activities associated with the project are expected to boost local economy in a region that has suffered economically since the 1970's.

(4) Schedule

Work is expected to begin in 2014, with expected completion in 2029.

(5) Dredged or Fill Material

Mixed coal refuse material generated from Armstrong Dock Coal Preparation Plant would be placed at the site. Prior to placing this material, top soil and subsoil will be removed and stockpiled for use as cover material. Upon completion of disposal operations, the refuse material will be final graded and covered with a minimum 4' of material consisting of non-toxic, non-combustible material (soil and rock) and a minimum of 0.5' of topsoil. The site will be re-vegetated in accordance with SMCRA reclamation guidelines. Streams and wetlands will be impacted by excavation and fill during the sites development. The volume of streams, to ordinary high water mark, is approximately 2,500 cubic yards. The volume of wetlands is approximately 6,600 cubic yards.

B. Minimal Impact Determination

(1) Loss of Aquatic Functions

Loss of aquatic functions: The primary functions of streams within the project boundary are aquatic habitat and movement, water conveyance, sediment transport and a potential water source for terrestrial animals. In addition, smaller ephemeral streams and headwaters of the larger streams supply organic material to lower reaches and eventually to larger stream systems. Intermittent streams may support aquatic insects and/or fish. The primary functions of wetlands within the project boundary include: flood water storage, energy dissipation, nutrient retention, sub-surface water storage and wildlife habitat.

Stream and wetland functions will be permanently lost during project development but will be replaced on-site and off-site. Proposed mitigation will include preservation, and enhancement of Williams Creek and tributaries, with wetlands created in the floodplain. Enhancement will include bank stabilization where needed, and in-stream structures providing improved habitat availability. Native vegetation including trees, shrubs, and herbaceous species will be established in areas disturbed by structure placement and bank stabilization measures. Tree and shrub plantings will be of higher quality than what currently exists. Wetland mitigation will consist of creating forested wetlands along a perennial stream, enhancing and preserving existing wetlands located on the property. Wetland hydrology will be established by inducing backwater flooding and creating an active floodplain that will restore natural hydrological connections and raise the local water table. Stream and wetland mitigation will begin as development of the disposal site is started. Mitigation sites are owned by the applicant and will be protected through the declaration of a restrictive covenant.

(2) Gain of Aquatic Functions

Aquatic functions gained with compensatory mitigation include:

- Restoring and enhancing streams off site.
- Increasing access to floodplains and floodprone areas in entranced reaches.
- Providing variable substrate material in streams where appropriate.
- Providing variable flow regimes in the form of riffles, runs, pools and glides.
- Establishing wide riparian zones where needed, using native tree and shrub species.
- Utilizing in-stream structures such as log weirs and overhangs to create variable habitat.
- Creating stable stream systems based on natural channel design techniques and geomorphic principles.

- Wetland impacts will be mitigated off site by establishing wetlands similar or higher quality than those being impacted.
- Providing permanent protection for both wetland and stream mitigation sites through a protective covenant.

(3) Avoidance and Minimization

The project has been designed to avoid and minimize adverse impacts to waters of the U.S. This site was selected due to its proximity to existing operations that will generate the material to be disposed. The site has no residences or private lands to be disturbed. Its proximity to the material source enables the use of private haul roads for transport, avoiding the use of public roadways.

(a) Use of this site avoids the development of multiple alternative sites required to provide the volume needed for disposal. In addition, the project footprint has been reduced to minimize impacts to adjacent, potential jurisdictional waters (for example Williams Creek). The only alternative that would result in no impacts to waters of the U.S. is the no-build alternative, which would not meet the purpose and need of the proposed project. Completely avoiding impacts to all streams and wetlands within the project boundary was determined not to be practical.

Erosion control measures during project development will be employed to minimize the increase of suspended solids and turbidity. Erosion control structures will include silt basins located as close to impact areas as practicable, diversion ditches constructed around the base of proposed refuse, rock check dams, temporary seeding and mulching and silt fence. Use of existing private haul roads to transport material to the site will avoid additional impacts to waters of the U.S. and avoid the use of public roadways. Additional measures include timely construction, re-vegetation and maintenance of sediment control structures and diversions.

(b) No information has been found that lists any of the aquatic sites as high quality waters. For example, there are no Outstanding Resource Waters, Division of Water Reference Reaches, Class 1-3 Undeveloped or Wild and Scenic Rivers or Cold Water Habitat located within the project boundary.

(c) Two new sediment basins and one pre-treatment pond will be utilized. The sediment basins will be located near the project limits, and along with the pre-treatment pond, will serve to treat water before it leaves the site. These basins will be used as temporary sediment control; to be removed and restored to emergent wetlands after project completion.

(4) Cumulative Impacts Analysis

(a) Land Disturbance Activities:

See **Cumulative Impacts Analysis** section of application.

(b) Watershed Improvement Projects:

Preservation Areas – No preservation areas or Wildlife Management Areas are located within the project boundary.

Restoration of Previously Mined Areas – There is no surface evidence of previous mining and/or reclaimed areas located within the project boundary.

Enhancement Activities – Enhancement activities are not available due to the permanent nature of the impacts to the affected resources within the project boundary

C. Compensatory Mitigation: A Stream and Wetland Mitigation Plan is submitted.